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## INDEX TO AMERICAN BOTANICAL LITERATURE

(1909)

The aim of this Index is to include all current botanical literature written by Americans, published in America, or based upon American material; the word America being used in its broadest sense.

Reviews, and papers which relate exclusively to forestry, agriculture, horticulture, manufactured products of vegetable origin, or laboratory methods are not included, and no attempt is made to index the literature of bacteriology. An occasional exception is made in favor of some paper appearing in an American periodical which is devoted wholly to botany. Reprints are not mentioned unless they differ from the original in some important particular. If users of the Index will call the attention of the editor to errors or omissions, their kindness will be appreciated.

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**Archavaleta, J.** Flora Uruguay 4: 1-62. f. 1-15. 1909.

An. Mus. Nac. Montevideo, vol. 7.

**Arthur, J. C.** Cultures of *Uredineae* in 1908. Mycologia 1: 225-256. 1 D 1909.

Includes new species in *Puccinia* (5), and *Gymnosporangium*.

**Atkinson, G. F.** Some fungus parasites of algae. Bot. Gaz. 48: 321-338. f. 1-8. 15 N 1909.

Includes 5 new species in *Rhizophidium* (2), *Lagenidium* and *Phlyctochytrium* (2).

**Atkinson, G. F.** Some problems in the evolution of the lower fungi. Ann. Myc. 7: 441-472. O 1909.

**Atkinson, J. B.** Length of time required to grow trees. Forest Leaves 12: 85-87. D 1909.

**Bailey, W.** Flowers of the mountain. Mountaineer 2: 29-37. N 1909.

**Bartlett, H. H.** Rupture of the exoperidium in *Calostoma Ravenelii*. Rhodora 11: 197, 198. 3 N 1909.

**Batchelder, F. W.** *Scirpus lineatus* in New Hampshire. Rhodora 11: 200. 3 N 1909.

**Benedict, R. C.** *Ceratopteridaceae*. N. Am. Fl. 16: 29, 30. 6 N 1909.

**Benedict, R. C.** *Osmundaceae*. N. Am. Fl. 16: 27, 28. 6 N 1909.

- Bergen, J. Y.** Concavity of leaves and illumination. *Bot. Gaz.* **48**: 459-461. *f. 1*. 18 D 1909.
- Bergen, J. Y.** The light requirement of plants. *Plant World* **12**: 201-205. S 1909.
- Berry, E. W.** A Miocene flora from the Virginia coastal plain. *Jour. Geol.* **17**: 19-30. *f. 1-11*. F 1909.  
Includes 6 new species of spermatophytes.
- Bessey, C. E.** Some beginnings in nature-study. *Nature-Study Rev.* **5**: 165-167. [N] 1909.
- Bicknell, E. P.** The ferns and flowering plants of Nantucket — V. *Bull. Torrey Club* **36**: 441-456. 3 S 1909.
- Blumer, J. C.** On the plant geography of the Chiricahua Mountains. *Science* II. **30**: 720-724. 19 N 1909.
- Boldingh, I.** A contribution to the knowledge of the flora of Anguilla (B. W. I.). *Rec. Trav. Bot. Néerland.* **6**: 1-36. 1909.
- Britten, J.** *Sapium* in the collections of Ruiz and Pavon. *Jour. Bot.* **47**: 422-424. N 1909.
- Britton, E. G.** Arctic mosses. *Bryologist* **12**: 106. 6 N 1909.
- Brown, N. E.** *Ennealophus*, N. E. Brown, gen. nov. [In *Decades Kewenses*, Decas LIV. no. 539.] *Kew Bull. Misc. Inf.* **1909**: 361, 362. N 1909.
- Brown, N. E.** *Opuntia imbricata*. *Curt. Bot. Mag.* IV. **5**: *pl.* 8290. D 1909.
- Campbell, D. H.** The prothallium and embryo of *Danaea*. Preliminary notes. *Ann. Bot.* **23**: 691. O 1909.
- Cannon, W. A.** The parasitism of *Orthocarpus purpurascens* Benth. *Plant World* **12**: 259-261. *f. 2*. N 1909.
- Chamberlain, C. J.** *Dioon spinulosum*. *Bot. Gaz.* **48**: 401-413. *f. 1-7*. 18 D 1909.
- Clements, F. E.** The genera of fungi. 1-227. Minneapolis, 1909.  
Includes 115 new genera in 29 families.
- [**Clute, W. N.**] Rare forms of ferns. XII. *Polystichum acrostichoides multifida*. *Fern Bull.* **17**: 99, 100. [N] 1909. [Illust.]
- Cockerell, T. D. A.** Eocene fossils from the Green River, Wyoming. *Am. Jour. Sci.* **28**: 447, 448. N 1909.  
Includes a new genus and species of *Buettneriaceae*, *Firmianites atterrimus*.
- Coker, W. C.** Additions to the flora of the Carolinas. *Bull. Torrey Club* **36**: 635-638. 16 N 1909.

- Coker, W. C.** A double-flowered *Sarracenia*. *Plant World* **12**: 253.  
f. 1, a-d. N 1909.
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264. pl. 16. 1 D 1909.
- Coker, W. C.** Liverwort types for elementary classes. *Torreyia* **9**:  
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- Coker, W. C.** Vitality of pine seeds and the delayed opening of  
cones. *Am. Nat.* **43**: 677-681. N 1909.
- Collins, F. S.** An algological prophecy fulfilled. *Rhodora* **11**: 196,  
197. 3 N 1909.
- Cox, C. F.** Charles Darwin and the mutation theory. *Ann. N. Y.*  
*Acad. Sci.* **18**: 431-451. 10 F 1909.
- Craig, J.** Botanical excursions. German field methods. *Ottawa Nat.*  
**23**: 163-167. 6 D 1909.
- Davis, B. M.** Cytological studies on *Oenothera*. I. Pollen develop-  
ment of *Oenothera grandiflora* L. *Ann. Bot.* **23**: 551-571. pl. 41,  
42. O 1909.
- Demcker, R.** Die schönsten und grössten Bäume des nordamerikan-  
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und Vergehen. *Mitt. Deuts. Dendr. Gesells.* **1909**: 57-68. 1909.
- Dominguez, J. A.** Contribución al estudio de la *Krameria iluca* Phil.  
*Trabaj. Mus. Farm. Buenos Aires* no. 24: 1-7. pl. 1-4. 1909.
- Dunbar, J.** American hawthorns. Some new arborescent species.  
*Gard. Chron.* **46**: 289. 30 O 1909; 308. 6 N 1909.
- Eames, A. J.** On the occurrence of centripetal xylem in *Equisetum*.  
*Ann. Bot.* **23**: 587-601. pl. 45. O 1909.
- Edwards, A. M.** Development of the Bacillaria from an amoeboid  
form and formation of that amoeboid form by energenesis. *Nuova*  
*Notar.* **24**: 136-140. O 1909.
- Eggleston, W. W.** New North American *Crataegi*. *Bull. Torrey*  
*Club* **36**: 639-642. 16 N 1909.  
3 new species native in the United States.
- Fernald, M. L.** A new variety of *Abies balsamea*. *Rhodora* **11**:  
201-203. 3 D 1909.
- Fernald, M. L.** *Scirpus Smithii* in Massachusetts. *Rhodora* **11**: 220.  
3 D 1909.

- Fernald, M. L.** The status of *Arenaria stricta* in New Hampshire. *Rhodora* **11**: 184, 185. 3 N 1909.
- Fischer, C. E. C.** The biology of *Armillaria mucida* Schrader. *Ann. Bot.* **23**: 515-535. *pl.* 37-38. O 1909.
- Flynn, N. F.** Plants new to Vermont. *Rhodora* **11**: 198, 199. 3 N 1909.
- Foster, A. S.** Ferns of Paradise Park. *Muhlenbergia* **5**: 144. 17 N 1909.
- Fraser, W. P.** Collection of the aecial stage of *Calyptospora columnaris* (Alb. & Schw.) Kühn. *Science* II. **30**: 814, 815. 3 D 1909.
- Frothingham, E. H.** Die Douglasfichte, ihre Küstenform und Gebirgsform. *Mitt. Deuts. Dendr. Gesells.* **1909**: 69-94. 1909. [Illust.]
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- Graham, M.** The development of the sporogonium and adjacent tissues of the gametophore of *Conocephalum conicum*. *Bull. Torrey Club* **36**: 615-623. *pl.* 30-33. 16 N 1909.
- Griggs, R. F.** Mitosis in *Synchytrium* with some observations on the individuality of the chromosomes. *Bot. Gaz.* **48**: 339-358. *pl.* 16-18. 15 N 1909.
- Grout, A. J.** Notes on *Amblystegium*. *Bryologist* **12**: 95-100. *pl.* 11. 6 N 1909.  
Includes *Amblystegium Holzingeri* sp. nov. from Wisconsin.
- Gürke, M.** Nachtrag zu der Beschreibung von *Cephalocereus DeLaetii* Gürke. *Monats. Kakteenk.* **19**: 129-133. 15 S 1909.
- Harper, R. M.** Car-window notes on the vegetation of the Delaware peninsula and southern Virginia. *Torreyia* **9**: 217-226. 18 N 1909.
- Harshberger, J. W.** Notes on annual tree rings. *Forest Leaves* **12**: 84, 85. D 1909.
- Harshberger, J. W.** The vegetation of the salt marshes and of the salt

- and fresh water ponds of northern coastal New Jersey. Proc. Acad. Nat. Sci. Philadelphia **61**: 373-400. f. 1-5. Au 1909.
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- Herter W.** Ein neuer Beitrag zur Kenntnis der Gattung *Lycopodium*. Hedwigia **49**: 88-92. pl. 3. 6 O 1909.  
Includes 4 new South American species.
- Hill, A. W.** The acaulescent species of *Malvastrum*. Jour. Linn. Soc. **39**: 216-230. 28 O 1909.  
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- Huber, J.** Novitates florae amazonicae. Bol. Mus. Goeldi **6**: 60-90. S 1909.  
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- Huber, J.** Sobre um caso notavel de polymorfismo nas folhas do abacateiro (*Persea gratissima* Gaertn.). Bol. Mus. Goeldi **6**: 54-59. 1909. [Illust.]
- Jennings, O. E.** *Hymenophyllum denticulatum* in Central China. Fern Bull. **17**: 106, 107. [N] 1909. [Illust.]
- Jennings, O. E.** The Labrador tea in Ohio. Ohio Nat. **10**: 13. N 1909.
- Jepson, W. L.** A flora of California. 33-64. f. 1-13. 4 N 1909; 337-368. f. 61-65. 4 N 1909.  
Includes *Cupressus Bakerii* and *Quercus durata* spp. nov. and several new forms and new combinations.
- Jones, L. R.** Resting spores of the potato fungus (*Phytophthora infestans*). Science II. **30**: 813, 814. 3 D 1909.
- Jonge, A. E. de.** Canker of cacao. Rec. Trav. Bot. Néerland. **6**: 37-61. pl. 1-3. 1909.  
*Spicaria colorans* sp. nov. is described as the cause of the canker.
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- Knowlton, F. H.** The stratigraphic relationships and palaeontology of the "Hell Creek beds," "Ceratops beds," and equivalents, and their reference to the Fort Union formation. Proc. Washington Acad. Sci. **11**: 179-238. 14 Au 1909.
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- Macoun, J. M.** Contributions from the herbarium of the Geological Survey. Ottawa Nat. **23**: 146-149. 15 N 1909.
- Massee, G.** Coffee diseases of the New World. Kew Bull. Misc. Inf. **1909**: 337-341. S 1909.
- Maxon, W. R.** *Cyatheaceae* [*Cyathea*]. N. Am. Fl. **16**: 65-88. 6 N 1909.  
Includes *Cyathea cubensis*, *C. araneosa*, *C. Harrisii*, and *C. Maxoni* spp. nov.
- Maxon, W. R.** *Gleicheniaceae*. N. Am. Fl. **16**: 53-63. 6 N 1909.  
Includes *Dicranopteris Underwoodiana* sp. nov.
- Maxon, W. R.** *Schizaeaceae*. N. Am. Fl. **16**: 31-52. 6 N 1909.  
Includes *Anemia Underwoodiana*, *A. obovata*, *A. Donnell-Smithii*, *A. jaliscana*, *A. guatemalensis*, *A. Rosei*, and *A. portoricensis* spp. nov.
- Merwin, H. E., & Lyon, H.** Sap pressure in the birch stem. Part I. Bot. Gaz. **48**: 442-458. *f.* 1-5. 18 D 1909.
- Millsbaugh, C. F.** *Praenunciae bahamenses* II. Contributions to a flora of the Bahamian archipelago. Field Columb. Mus. Publ. Bot. **2**: 289-321. *Map.* Au 1909.  
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- Morris, F. J. A.** *Ophioglossum vulgatum* in Ontario. Fern Bull. **17**: 102-105. [N] 1909.
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- Parish, S. B.** Roehl and the type of *Washingtonia*. *Bot. Gaz.* **48**: 462, 463. 18 D 1909.
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- Peirce, G. J.** The botanical aspects of Stanford University. *Plant World* **12**: 245–252. N 1909.
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- Prescott, A.** Grape ferns. *Fern Bull.* **17**: 100–102. [N] 1909.
- Pulle, A.** Neue Beiträge zur Flora Surinams — II. *Rec. Trav. Bot. Néerland.* **6**: 251–293. 1909.  
Includes 17 new species distributed through 13 families of spermatophytes.
- Purpus, J. A.** *Opuntia utahensis* J. A. Purpus nov. spec. *Monats. Kakteenk.* **19**: 133, 134, 135. 15 S 1909. [Illust.]
- Regnier, P. R.** Note sur la racine du nim-nim (*Spilanthus uliginosa* Sw.) Trabaj. *Mus. Farm. Buenos Aires* no. 22: 1–4. 1909. [Illust.]
- Rehder, A.** Note on the morphology of the fruit of *Lonicera caerulea*. *Rhodora* **11**: 209–211. 3 D 1909.
- Riddle, L. W.** A key to the species and principal varieties of *Cladonia* occurring in New England. *Rhodora* **11**: 212–214. 3 D 1909.

- Riddle, L. W.** Preliminary lists of New England plants — XXIII. *Cladoniaceae*. *Rhodora* **11**: 215-219. 3 D 1909.
- Rock, J. F.** A new Hawaiian *Scaevola*. *Bull. Torrey Club* **36**: 645, 646. 16 N 1909. [Illust.]
- Rolfe, R. A.** New orchids: decade 34. *Kew Bull. Misc. Inf.* **1909**: 364-368. N 1909.  
Includes new American species of *Pleurothallis* (2), *Stanhopea*, *Mormodes*, and *Oncidium*.
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- Rydberg, P. A.** The flowers and fruit of the turtle grass. *Jour. N. Y. Bot. Gard.* **10**: 261-264. *pl.* 73. N 1909.
- Sargent, C. S.** American *Crataegi* in the Species Plantarum of Linnaeus. *Rhodora* **11**: 181-183. 3 N 1909.
- Sauer, L. W.** *Quercus Leana*; a hybrid oak. *Plant World* **12**: 198-201. *f.* 1, 2. S 1909.
- Schaffner, J. H.** An interesting *Botrychium* habitat. *Ohio Nat.* **10**: 8, 9. N 1909.
- Schaffner, J. H.** The gymnosperms of Ohio. *Ohio Nat.* **10**: 9-12. N 1909.
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- Schwappach, A. F.** Neuere Erfahrungen über das Verhalten von *Pseudotsuga Douglasii* und *Picea sitkaensis*. *Mitt. Deuts. Dendr. Gesells.* **1909**: 95-103. 1909. [Illust.]
- Schwerin, F. v.** Monographie der Gattung *Sambucus*. *Mitt. Deuts. Dendr. Gesells.* **1909**: 1-56. 1909. [Illust.]
- Seaver, F. J.** Some plant diseases: their cause and treatment. *Jour. N. Y. Bot. Gard.* **10**: 241-256. *f.* 33-37. N 1909.
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